

ABSTRACT

According to one aspect of the invention, a field emission display is provided comprising: an anode; a phosphor screen located on the anode; a cathode; an evacuated space between the anode and the cathode; an emitter located on the cathode opposite the phosphor; wherein the emitter comprises an electropositive element both in a body of the emitter and on a surface of the emitter. According to another aspect of the invention, a process for manufacturing a FED is provided comprising the steps of: forming an emitter comprising an electropositive element in the body of the tip; positioning the emitter in opposing relation to a phosphor display screen; creating an evacuated space between the emitter tip and the phosphor display screen; and causing the electropositive element to migrate to an emission surface of the emitter.